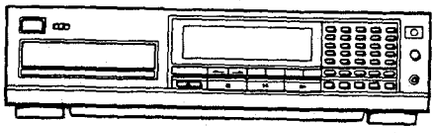
S/M Code No.89-009 DATE OF ISSUE 3/19

AIWA®

XC-004

SERVICE MANUAL



COMPACT DISC PLAYER

• BASIC CD MECHANISM : KSL-150ACM3 • TYPE. H,U,C,E,K

SPECIFICATIONS

Type:	Compact disc digital audio system
Disc:	Compact disc
Scanning method:	Non contact optical scanner (semiconductor laser application)
Laser:	Semiconductor laser (λ=780 nm)
Rotation speed:	Approx. 500 rpm-200 rpm (CLV)
Error correction:	Cross Interleave, Read Solomon Code
No. of channels:	2 channels
D-A conversion:	LBSS 18 bit DUAL
Frequency response:	4 Hz-20 kHz ±0.3 dB
Harmonic distortion:	0.004% (1 kHz) (EIAJ)
Dynamic range:	96 dB
Channel separation:	90 dB (1 kHz)
S/N Ratio:	105 dB (A) (EIAJ)
Wow/Flutter:	Unmeasurable
Outputs:	OUTPUT jack Output level 2V Load impedance more than 10 k ohms PHONES jack Output level 8 mW (32 ohms)

Power and Miscellaneous

Power supply:	
XC-004H	AC 120V/220V/240V, 50/60 Hz
XC-004U,C	AC 120V, 60 Hz
XC-004E	AC 220V, 50/60 Hz
XC-004K	AC 240V, 50/60 Hz
Power consumption:	12W
Dimensions:	430(W) × 115(H) × 349(D) mm
Weight:	Approx. 4.8 kg

• Design and specifications are subject to change without notice.

AIWA Co., Ltd.

Tokyo Japan

Printed in

DISASSEMBLY INSTRUCTIONS

1. Removing the Tray

1) Remove the steel cabinet.
2) •For AUTOMATIC operation
   Press the OPEN/CLOSE button to eject the tray.

   •For MANUAL operation
   Insert a flat-head screwdriver into the hole at the bottom of the set and turn the cam in the direction of the arrow to eject the tray. (See Figure-1.)
3) Remove 2 screws Ⓐ and pull out the tray toward you. (See Figure-2.)

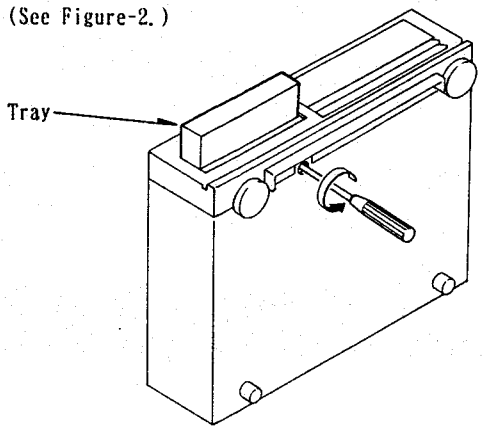


Fig-1

2. Removing the CD Mechanism

1) Pull out the tray, remove the joint CD in the direction of the arrow, and remove 3 screws Ⓑ. (See Figure-2.)

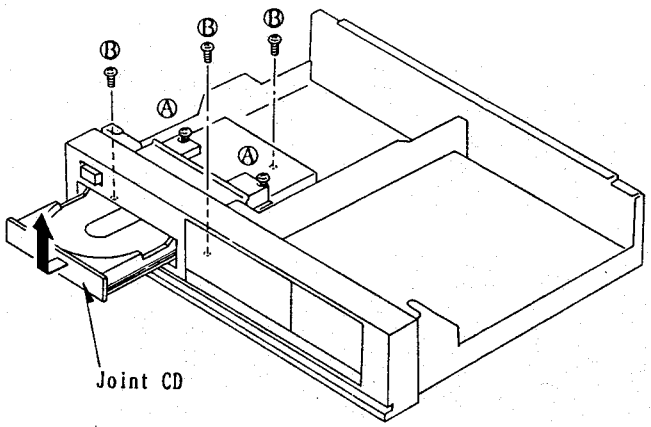
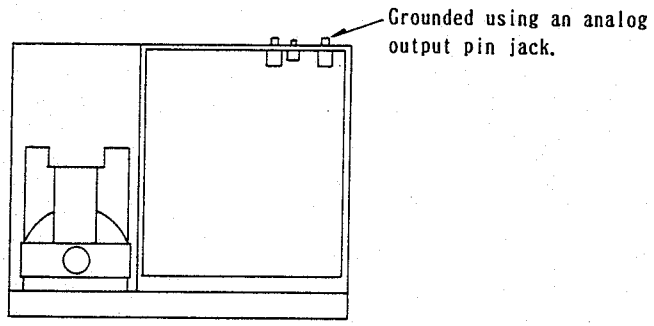


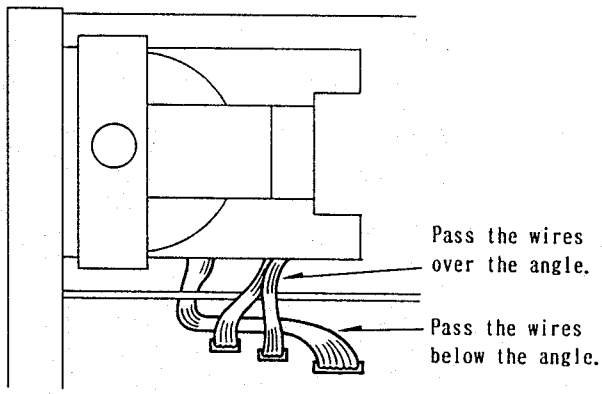
Fig-2

● Cautions on Servicing

【After repairing and during measurement】
The ground on the board is connected to the chassis using an analog output pin jack.
When the screw fixing the pin jack is removed, the connection between the ground and chassis becomes unstable. Pay attention when the chassis is connected to the ground during voltage measurement.
After repairing, be sure to securely tighten the screw fixing the pin jack.



【Handling the pickup wires】
The pickup wires should be handled as shown below.
Handling defects may cause troubles (no play operation, etc.).



■ ACCESSORIES／PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1	★84-771-904-019	INSTRUCTION BOOKLET H	※	1
	2	★86-411-011-019	RC-C003YBN		1
	3	★87-032-845-019	SIEMENS PLUG (H ONLY)		1
	4	★87-034-773-010	CORD PIN, R-237W-1M		1

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

"Varoitus! Suojakoteloa ei saa avata. Laite sisältää laserdiodin, joka lahettää näkymätöntä silmille vaarallista lasersäteilyä."

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS-1
LASER-PRODUCT

ADVARSEL!

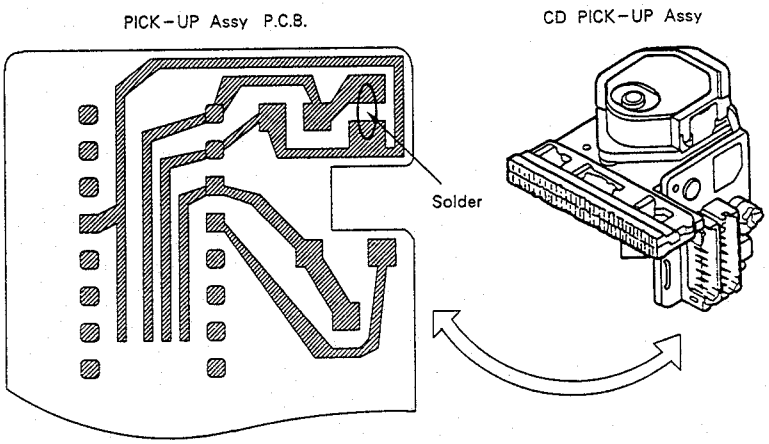
Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

"Denna apparat innehåller laserkomponent som avger laserstrålning som överskrider gränsen för laserklass 1."

Precaution to replace Optical block (KSS−150A)

Body or clothes electrostatic potential could ruin laser diode in the optical block.
Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in figure below.



For the pin description of ICs CXP5058H−179Q, CXA1081S, CXA1082AS and CXD1125Q, see the XC−002's Service Manual.

IC DESCRIPTION

IC, CXD1088Q

Pin No.	Pin name	I/O	Description
1 ∫ 5	D12 ∫ D16	O	D12 to D16 parallel output. Fixed in low during serial output. (Not used)
6	VSS	–	-Power supply (0V)
7	MUTE	I	Output is set to "0" or offset value. Valid in high.
8	TEST1	I	Test terminal. Usually, fixed in low.
9	SOFT	I	Software muting on/off. Muted in high.
10	HOLD	I	Muting is stopped. Stopped in high.
11	INIT	I	Power on Reset input. Active in low.
12	DPOL	I	Input data polarity is inverted.
13	LRCK	I	LRCK input.
14	DATA	I	16 bit x 2. Serial data input. 2's complement.
15	BCK	I	BCK input.
16	C2PO	I	Error flag input.
17	VDD	–	+Power supply (+5V)
18	TEST2	I	Test terminal. Usually, fixed in low.
19	ROM1	I	Used for 83rd. ROM selection. See the filter characteristic.
20	ROM2	I	Used for 21st. ROM selection. See the filter characteristic.
21	OFST	I	Offset is added to the output. Valid in high.
22	OPOL	I	Offset value's polarity is designated. "H" (+1%). "L" (-1%).
23	DRES	I	Data length during serial output. "H" : 18 bits. "L" : 16 bits.
24	FORM	I	Output format is designated. "H" : I²S. "L" : Sony.
25	SCK	O	System clock output for external IC ($384F_s$). 16.9344MHz
26	XOUT	O	Crystal oscillator output ($384F_s$).
27	XIN	I	Crystal oscillator input ($384F_s$).
28	VSS	–	-Power supply (0V).
29	APTR	O	R-channel aperture clock.
30	APTL	O	L-channel aperture clock.
31	SP	I	Output serial/parallel selection. "H" : parallel. "L" : serial.
32	LRO	O	LRCK output ($4F_s$)
33	D1	O	D1 (MSB) parallel output. BCK serial output ($4F_s$).
34	D2	O	D2 parallel output. DATA serial output ($4F_s$).
35	D3	O	D3 parallel output. Serial : LRC output (I² mode), WCK output (Sony mode).
36 ∫ 38	D4 ∫ D6	O	D4 to D6 parallel output. Fixed in low during serial output.
39	VDD	–	+Power supply (+5V).
40 ∫ 44	D7 ∫ D11	O	D7 to D11 parallel output. Fixed in low during serial output.

IC, L7A0150

Pin No.	Pin name	I/O	Description
1 52 60 2 ∫ ∫ 57 64	AD00 ∫ AD12	O	} Address output to calibration ROM
3	CENO	O	Chip enable to calibration ROM
4 11 ∫ ∫ 8 13	D0I ∫ D7I	I	} Data input from calibration ROM
9, 26, 58	VDD	—	+5V power supply.
10, 25, 59	VSS	—	GND power.
14	DFWCI	I	Word clock to LBSS circuit.
15	ADIN	I	A-channel data input to LBSS circuit.
16	ASIN	I	A-channel shift input to LBSS circuit.
17	BDIN	I	B-channel data input to LBSS circuit.
18	BSIN	I	B-channel shift input to LBSS circuit.
19	DFBCI	I	Bit clock to LBSS circuit.
20	DFLRI	I	L/R clock to LBSS circuit.
21	CZMI	I	Bit clock to calibration circuit.
22	MUXDO	O	Data output from calibration circuit.
23	DATAI	I	Data input to calibration circuit.
24	LRNI	I	L/R clock to calibration circuit.
27	STPN	I	Stop input in calibration circuit.
28	MD2I	I	} Mode setting in calibration circuit.
29	MD1I	I	
30	MD0I	I	
31	RLNO	O	R/L clock from LBSS circuit.
32	SFTO	O	Shift/normal output from LBSS circuit.
33	DGB	O	B-channel deglich output from LBSS circuit.
34	DGA	O	A-channel deglich output from LBSS circuit.
35	BDOUT	O	B-channel data output from LBSS circuit.
36	WCOUT	O	Word clock output from LBSS circuit.
37	BCOUT	O	Bit clock output from LBSS circuit.
38	ADOUT	O	A-channel data output from LBSS circuit.
40	INTN	I	Initial
41	TESTO	O	Test terminal. (Usually, set to OPEN.)
44	DINVN	I	ADOUT and BDOUT logic inversion is designated.
45	BSON	I	LBSS circuit on/off
46	STOUT	I	Data output, time sharing, and simultaneous setting in LBSS circuit.
47	SRLN	I	DFLRI logic inversion is designated.
48	DLYZ	I	Input position of data ⑮ to ⑱ is designated. Usually, set to "I".
49	TSEL B	I	} Timer time setting in LBSS circuit.
51	TSEL A	I	

ELECTRICAL MAIN PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
===IC===		
	87-001-184-010	IC,CXA1081S
	87-001-400-010	IC,CXA1082AS
	87-001-403-010	IC,CXD1088Q
	87-020-896-010	IC,CXD1125
	87-020-796-010	IC,CXK-5816M
	84-762-607-010	IC,CXP5058H-179Q
	87-001-196-019	IC,ICPN10
	84-736-610-010	IC,L7A0150
	87-020-758-019	IC,NJM2068SD
	87-001-542-019	IC,NJM2082L
	87-001-555-019	IC,NJM2903D
	87-027-939-019	IC,NJM4558S
	87-027-986-019	IC,NJM4560S
	87-020-863-010	IC,PCM56P
	87-020-910-019	IC,PST523F
	87-001-169-010	IC,STA341M
	87-027-564-019	IC,TC4011BP
	87-027-938-019	IC,TC4053BP
===TRANSISTOR===		
	89-110-154-019	TRANSISTOR,2SA1015(Y)
	89-106-837-019	TRANSISTOR,2SA683(S)
	89-106-844-019	TRANSISTOR,2SA684R
	89-313-834-019	TRANSISTOR,2SC1383S
	89-318-154-019	TRANSISTOR,2SC1815(Y)
	89-318-465-019	TRANSISTOR,2SC1846S
	89-328-785-019	TRANSISTOR,2SC2878(A)
	89-413-023-019	TRANSISTOR,2SD1302S
	89-408-804-019	TRANSISTOR,2SD880Y
	87-026-366-019	TRANSISTOR,RN1204
	87-026-369-019	TRANSISTOR,RN1207
	87-026-376-019	TRANSISTOR,RN2203
	87-026-377-019	TRANSISTOR,RN2204
===DIODE===		
	87-027-376-019	DIODE,1B4B41
	87-020-465-019	DIODE,1SS133
	87-020-992-010	DIODE,MPG06D
	87-027-626-019	DIODE,S5277D
	87-027-393-019	DIODE,ZENER HZ-4C2
	87-027-702-019	DIODE,ZENER HZ-6C2L
	87-027-662-019	DIODE,ZENER HZ22L1
===MAIN CIRCUIT BOARD SECTION===		
C101	*87-010-124-019	CAP,ELECT 4700-16V SME
C102	*87-010-263-019	CAP,ELECT 100-10V
C103	*87-010-403-019	CAP,ELECT 3.3-50V SME
C104	*87-015-997-019	CAP,ELECT 2200-16V SME
C105	*87-010-263-019	CAP,ELECT 100-10V
C106	*87-010-403-019	CAP,ELECT 3.3-50V SME
C107	*87-018-209-019	CAP,CERA-SOL SS 0.1
C108	*87-018-209-019	CAP,CERA-SOL SS 0.1
C109	*87-010-384-019	CAP,ELECT 100-25V
C110	*87-018-134-019	CAP,CERA-SOL SS 0.01
C111	*87-010-410-019	CAP,ELECT 330-50V
C112	*87-018-134-019	CAP,CERA-SOL SS 0.01
C113	*87-018-134-019	CAP,CERA-SOL SS 0.01
C114	*87-018-209-019	CAP,CERA-SOL SS 0.1
C115	*87-010-405-019	CAP,ELECT 10-50V SME
C116	*87-010-374-019	CAP,ELECT 47-10V
C117	*87-018-115-019	CAP,CERA-SOL SS 47P
C118	*87-018-115-019	CAP,CERA-SOL SS 47P
C119	*87-010-408-019	CAP,ELECT 47-50V

REF.NO.	PART NO.	DESCRIPTION
C120	*87-018-209-019	CAP,CERA-SOL SS 0.1
C121	*87-018-115-019	CAP,CERA-SOL SS 47P
C122	*87-018-115-019	CAP,CERA-SOL SS 47P
C123	*87-018-115-019	CAP,CERA-SOL SS 47P
C124	*87-018-115-019	CAP,CERA-SOL SS 47P
C125	*87-018-115-019	CAP,CERA-SOL SS 47P
C126	*87-018-115-019	CAP,CERA-SOL SS 47P
C127	*87-010-265-019	CAP,ELECT 33-16V
C130	*87-010-265-019	CAP,ELECT 33-16V
C131	*87-010-401-019	CAP,ELECT 1-50V
C132	*87-010-404-019	CAP,ELECT 4.7-50V SME
C135	*87-010-382-019	CAP,ELECT 22-25V SME
C137	*87-010-400-019	CAP,ELECT 0.47-50V SME
C138	*87-010-265-019	CAP,ELECT 33-16V
C139	*87-010-265-019	CAP,ELECT 33-16V
C140	*87-018-131-019	CAP,CERA-SOL SS 1000P
C141	*87-018-118-019	CAP,CERA-SOL SS 82P
C142	*87-010-265-019	CAP,ELECT 33-16V
C143	*87-018-150-019	CAP,CERA-SOL S 18P
C144	*87-018-150-019	CAP,CERA-SOL S 18P
C146	*87-010-265-019	CAP,ELECT 33-16V
C149	*87-015-454-019	CAP,ELECT BP 3.3-25
C151	*87-010-367-019	CAP,ELECT 4.7-25V
C155	*87-010-265-019	CAP,ELECT 33-16V
C156	*87-010-265-019	CAP,ELECT 33-16V
C157	*87-010-265-019	CAP,ELECT 33-16V
C162	*87-010-265-019	CAP,ELECT 33-16V
C163	*87-010-265-019	CAP,ELECT 33-16V
C168	*87-010-400-019	CAP,ELECT 0.47-50V SME
C169	*87-018-140-019	CAP,CERA-SOL 2.2P CH
C171	*87-018-147-019	CAP,CERA-SOL SS 10P CH
C172	*87-010-405-019	CAP,ELECT 10-50V SME
C173	*87-010-265-019	CAP,ELECT 33-16V
C174	*87-010-263-019	CAP,ELECT 100-10V
C175	*87-018-134-019	CAP,CERA-SOL SS 0.01
C176	*87-018-131-019	CAP,CERA-SOL SS 1000P
C177	*87-018-131-019	CAP,CERA-SOL SS 1000P
C178	*87-010-265-019	CAP,ELECT 33-16V
C179	*87-010-265-019	CAP,ELECT 33-16V
C180	*87-010-265-019	CAP,ELECT 33-16V
C181	*87-010-265-019	CAP,ELECT 33-16V
C182	*87-014-041-019	CAP,PP 220P
C183	*87-014-041-019	CAP,PP 220P
C184	*87-014-039-019	CAP,PP 180P
C185	*87-014-039-019	CAP,PP 180P
C186	*87-014-039-019	CAP,PP 180P
C187	*87-014-039-019	CAP,PP 180P
C190	*87-010-265-019	CAP,ELECT 33-16V
C191	*87-010-265-019	CAP,ELECT 33-16V
C192	*87-018-134-019	CAP,CERA-SOL SS 0.01
C193	*87-018-134-019	CAP,CERA-SOL SS 0.01
C194	*87-018-119-019	CAP,CERA-SOL SS 100P
C195	*87-018-119-019	CAP,CERA-SOL SS 100P
C196	*87-014-118-019	CAP,PP 0.015G
C197	*87-014-118-019	CAP,PP 0.015G
C198	*87-018-134-019	CAP,CERA-SOL SS 0.01
C199	*87-018-134-019	CAP,CERA-SOL SS 0.01
C200	*87-010-265-019	CAP,ELECT 33-16V
C201	*87-018-209-019	CAP,CERA-SOL SS 0.1
C202	*87-010-265-019	CAP,ELECT 33-16V
C203	*87-018-209-019	CAP,CERA-SOL SS 0.1
C204	*87-014-049-019	CAP,PP 470P
C205	*87-014-065-019	CAP,PP 2200P
C206	*87-014-049-019	CAP,PP 470P

REF.NO.	PART NO.	DESCRIPTION
C207	★87-014-065-019	CAP,PP 2200P
C208	★87-015-457-019	CAP,ELECT BP 47-16V
C209	★87-015-457-019	CAP,ELECT BP 47-16V
C210	★87-018-134-019	CAP,CERA-SOL SS 0.01
C211	★87-018-134-019	CAP,CERA-SOL SS 0.01
C212	★87-018-134-019	CAP,CERA-SOL SS 0.01
C213	★87-018-134-019	CAP,CERA-SOL SS 0.01
C214	★87-018-131-019	CAP,CERA-SOL SS 1000P
C215	★87-018-131-019	CAP,CERA-SOL SS 1000P
C216	★87-018-134-019	CAP,CERA-SOL SS 0.01
C217	★87-010-265-019	CAP,ELECT 33-16V
C218	★87-018-134-019	CAP,CERA-SOL SS 0.01
C219	★87-010-265-019	CAP,ELECT 33-16V
C225	★87-018-205-019	CAP,CERA-SOL SS 0.022
C226	★87-010-265-019	CAP,ELECT 33-16V
C227	★87-018-128-019	CAP,CERA-SOL SS 560P
C228	★87-018-128-019	CAP,CERA-SOL SS 560P
C229	★87-018-134-019	CAP,CERA-SOL SS 0.01
C230	★87-018-209-019	CAP,CERA-SOL SS 0.1
C231	★87-010-231-019	CAP,ELECT 220-10V KS
C232	★87-010-231-019	CAP,ELECT 220-10V KS
C233	★87-010-263-019	CAP,ELECT 100-10V
C234	★87-010-263-019	CAP,ELECT 100-10V
C235	★87-018-209-019	CAP,CERA-SOL SS 0.1
C236	★87-018-209-019	CAP,CERA-SOL SS 0.1
C237	★87-018-209-019	CAP,CERA-SOL SS 0.1
C238	★87-010-265-019	CAP,ELECT 33-16V
C239	★87-018-209-019	CAP,CERA-SOL SS 0.1
C240	★87-018-209-019	CAP,CERA-SOL SS 0.1
C242	★87-010-265-019	CAP,ELECT 33-16V
C243	★87-018-119-019	CAP,CERA-SOL SS 100P
C244	★87-018-209-019	CAP,CERA-SOL SS 0.1
C245	★87-010-265-019	CAP,ELECT 33-16V
C246	★87-018-131-019	CAP,CERA-SOL SS 1000P
C247	★87-018-115-019	CAP,CERA-SOL SS 47P
C248	★87-018-115-019	CAP,CERA-SOL SS 47P
C249	★87-018-115-019	CAP,CERA-SOL SS 47P
EM101	★87-008-372-019	FILTER,EMI,BL OIRNI
EM102	★87-008-372-019	FILTER,EMI,BL OIRNI
EM103	★87-008-372-019	FILTER,EMI,BL OIRNI
EM104	★87-008-372-019	FILTER,EMI,BL OIRNI
EM105	★87-008-372-019	FILTER,EMI,BL OIRNI
EM106	★87-008-372-019	FILTER,EMI,BL OIRNI
EM107	★87-008-372-019	FILTER,EMI,BL OIRNI
EM108	★87-008-372-019	FILTER,EMI,BL OIRNI
EM109	★87-008-372-019	FILTER,EMI,BL OIRNI
EM110	★87-008-372-019	FILTER,EMI,BL OIRNI
EM111	★87-008-372-019	FILTER,EMI,BL OIRNI
EM112	★87-008-372-019	FILTER,EMI,BL OIRNI
EM113	★87-008-372-019	FILTER,EMI,BL OIRNI
EM114	★87-008-372-019	FILTER,EMI,BL OIRNI
EM115	★87-008-372-019	FILTER,EMI,BL OIRNI
J101	87-009-052-019	JACK PIN 2P(OUTPUT)
J102	+ + +	JACK PIN 2P(OUTPUT)
J103	★87-049-630-019	JACK 2.5(DECK SYNC)
L101	★87-003-102-019	COIL CHOKE 10UH
L102	★87-003-102-019	COIL CHOKE 10UH
L103	★87-003-102-019	COIL CHOKE 10UH
L104	★87-003-147-019	COIL CHOKE 22UH
L105	★87-003-102-019	COIL CHOKE 10UH
L106	★87-003-102-019	COIL CHOKE 10UH
L107	★87-003-102-019	COIL CHOKE 10UH
L108	★87-003-102-019	COIL CHOKE 10UH
L109	★87-003-102-019	COIL CHOKE 10UH

REF.NO.	PART NO.	DESCRIPTION
L110	★87-003-102-019	COIL CHOKE 10UH
L111	★87-003-102-019	COIL CHOKE 10UH
L112	★87-003-147-019	COIL CHOKE 22UH
L113	★87-003-102-019	COIL CHOKE 10UH
⚠ PT101	84-762-605-019	TRANSFORMER PT,E(E ONLY)
⚠ PT101	84-762-603-019	TRANSFORMER PT,H(H ONLY)
⚠ PT101	84-762-606-019	TRANSFORMER PT,K(K ONLY)
⚠ PT101	84-762-604-019	TRANSFORMER PT,UC(U,C ONLY)
R226	★87-025-373-019	RES,METAL 3.9K 1/6W
R227	★87-025-373-019	RES,METAL 3.9K 1/6W
R228	★87-025-423-019	RES,METAL 4.7K 1/6W
R229	★87-025-431-019	RES,METAL 5.6K 1/6W
R230	★87-025-423-019	RES,METAL 4.7K 1/6W
R231	★87-025-431-019	RES,METAL 5.6K 1/6W
R232	★87-025-369-019	RES,METAL 1.8K 1/6W
R233	★87-025-369-019	RES,METAL 1.8K 1/6W
R236	★87-025-421-019	RES,METAL FILM 2.2K 1/8W
R237	★87-025-421-019	RES,METAL FILM 2.2K 1/8W
R238	★87-025-367-019	RES,METAL FILM 1K 1/8W
R239	★87-025-367-019	RES,METAL FILM 1K 1/8W
R242	★87-025-367-019	RES,METAL FILM 1K 1/8W
R243	★87-025-367-019	RES,METAL FILM 1K 1/8W
R246	★87-025-422-019	RES,METAL FILM 3.3K 1/8W
R247	★87-025-422-019	RES,METAL FILM 3.3K 1/8W
SFR101	★87-024-173-019	SFR,22K
SFR102	★87-024-173-019	SFR,22K
SFR103	★87-024-173-019	SFR,22K
SFR104	★87-024-168-019	SFR,1K
SFR105	★87-024-173-019	SFR,22K
SFR106	★87-024-172-019	SFR,10K
SFR107	★87-024-172-019	SFR,10K
SFR108	★87-024-176-019	SFR,100K
SFR109	★87-024-176-019	SFR,100K
⚠ SW101	87-036-136-019	ROTARY SW(AC VOLTAGE)(H ONLY)
X101	★84-733-617-019	CRYSTAL,16.9344MHZ

===FRONT CIRCUIT BOARD SECTION===

D506	87-001-556-010	LED,GL8PR7(QUICK PEAK SEARCH)
D507	87-001-557-010	LED,GL8PG7(1)
D508	87-001-557-010	LED,GL8PG7(1/ALL)
D509	87-001-557-010	LED,GL8PG7(A⟷B)
D510	87-001-557-010	LED,GL8PG7(PROGRAM)
FL501	84-733-625-010	FL,5ST11GK
SW501	87-036-142-010	TACT SW(1)
SW502	87-036-142-010	TACT SW(6)
SW503	87-036-142-010	TACT SW(11)
SW504	87-036-142-010	TACT SW(16)
SW505	87-036-142-010	TACT SW(>20)
SW506	87-036-142-010	TACT SW(RANDOM)
SW507	87-036-142-010	TACT SW(▶▶SKIP)
SW508	87-036-142-010	TACT SW(INDEX⟶)
SW509	87-036-142-010	TACT SW(2)
SW510	87-036-142-010	TACT SW(7)
SW511	87-036-142-010	TACT SW(12)
SW512	87-036-142-010	TACT SW(17)
SW513	87-036-142-010	TACT SW(AC)
SW514	87-036-142-010	TACT SW(BLANK)
SW515	87-036-142-010	TACT SW(◀◀SKIP)
SW516	87-036-142-010	TACT SW(INDEX⟵)
SW517	87-036-142-010	TACT SW(3)
SW518	87-036-142-010	TACT SW(8)
SW519	87-036-142-010	TACT SW(13)
SW520	87-036-142-010	TACT SW(18)
SW521	87-036-142-010	TACT SW(PROGRAM)
SW522	87-036-142-010	TACT SW(STOP)

REF.NO.	PART NO.	DESCRIPTION
SW523	87-036-142-010	TACT SW(SEARCH▶▶)
SW524	87-036-142-010	TACT SW(REPEAT A—B)
SW525	87-036-142-010	TACT SW(4) .
SW526	87-036-142-010	TACT SW(9)
SW527	87-036-142-010	TACT SW(14)
SW528	87-036-142-010	TACT SW(19)
SW529	87-036-142-010	TACT SW(CHECK)
SW530	87-036-142-010	TACT SW(PAUSE)
SW531	87-036-142-010	TACT SW(SEARCH◀◀)
SW532	87-036-142-010	TACT SW(REPEAT 1/ALL)
SW533	87-036-142-010	TACT SW(5)
SW534	87-036-142-010	TACT SW(10)
SW535	87-036-142-010	TACT SW(15)
SW536	87-036-142-010	TACT SW(20)
SW537	87-036-142-010	TACT SW(DELETE)
SW538	87-036-142-010	TACT SW(PLAY)
SW539	87-036-142-010	TACT SW(OPEN/CLOSE)
SW540	87-036-142-010	TACT SW(TIME)
SW541	87-036-142-010	TACT SW(Q-PEAK SEARCH)
===HP CIRCUIT BOARD SECTION===		
C701	★87-018-127-019	CAP,CERA-SOL SS 470P
C702	★87-018-127-019	CAP,CERA-SOL SS 470P
C703	★87-010-551-019	CAP,ELECT 33-10V SRE
C704	★87-010-551-019	CAP,ELECT 33-10V SRE
C705	★87-018-131-019	CAP,CERA-SOL SS 1000P
C706	★87-018-131-019	CAP,CERA-SOL SS 1000P
C707	★87-018-134-019	CAP,CERA-SOL SS 0.01
EM701	★87-008-372-019	FILTER,EMI,BL OIRNI
EM702	★87-008-372-019	FILTER,EMI,BL OIRNI
EM703	★87-008-372-019	FILTER,EMI,BL OIRNI
EM704	★87-008-372-019	FILTER,EMI,BL OIRNI
J701	87-009-066-019	JACK 6.3DIA(PHONES)
L701	★87-003-102-019	COIL CHOKE 10 UH
L702	★87-003-102-019	COIL CHOKE 10 UH
VR701	★87-024-163-019	VOLUNE 20KA(PHONE LEVEL)
===SWITCH CIRCUIT BOARD SECTION===		
SW801	81-541-618-019	PUSH SW(POWER)
SW802	87-036-149-019	SLIDE SW 1-1-3(TIMER)
===REMOTE CIRCUIT BOARD SECTION===		
CP101	87-001-533-010	REMOCON UNIT GP1U501X(REM.SEN.)
===CD MOTOR-1 CIRCUIT BOARD SECTION===		
※ PCB-F	91-625-848-110	MOTOR-1 C.B(RF-310T-11400)
※ PCB-F	91-628-263-110	MOTOR-1 C.B(MDN-4RA3NTAS/4RA3ETA)
※ M1	9X-264-077-010	MOTOR GEAR ASSY(SLED) (RF-310T-11400)
※ M1	9X-264-134-410	MOTOR GEAR ASSY(SLED) (MDN-4RA3ETA)
※ M2	9X-264-133-710	MOTOR ASSY(W/CHASSIS,T.T) (SPINDLE)(RF-310T-11400)
※ M2	9X-264-134-810	MOTOR ASSY(W/CHASSIS,T.T) (SPINDLE)(MDN-4RA3NTAS)
S1	91-570-822-210	LEAF SW(INSIDE LIMIT)
===CD MOTOR-2 CIRCUIT BOARD SECTION===		
M3	9X-246-133-610	MOTOR ASSY(LOADING)
===MISCELLANEOUS===		
⚠	82-187-796-019	AC CORD (BS)(K ONLY)
⚠	82-187-797-019	AC CORD (E)(E ONLY)
⚠	87-034-749-019	AC CORD (H) W/PLUG(H ONLY)
⚠	87-034-583-019	AC CORD ASSY U(U ONLY)
⚠	87-085-184-010	AC CORD BUSHING D(H,U,C ONLY)
⚠	87-085-185-010	AC CORD BUSHING E(E ONLY)
⚠	87-085-189-010	AC CORD BUSHING(SPT-2)(K ONLY)
	98-848-117-019	PICK UP KSS-150ACM3
S2	91-571-312-110	LEAF SW(OPEN/CLOSE)

※Caution
Two types of the spindle (DISC) motor and sled motor are used, but they are not compatible.
Check the part numbers (MDN ····, RF ····) on the labels of motors and replace motors with the same one.

E C B

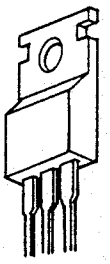
2SA1015
2SC1815
2SC2878

E C B

2SA683
2SA684
2SC1383
2SD1302

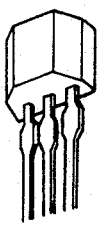
E C B

2SC1846



B C E

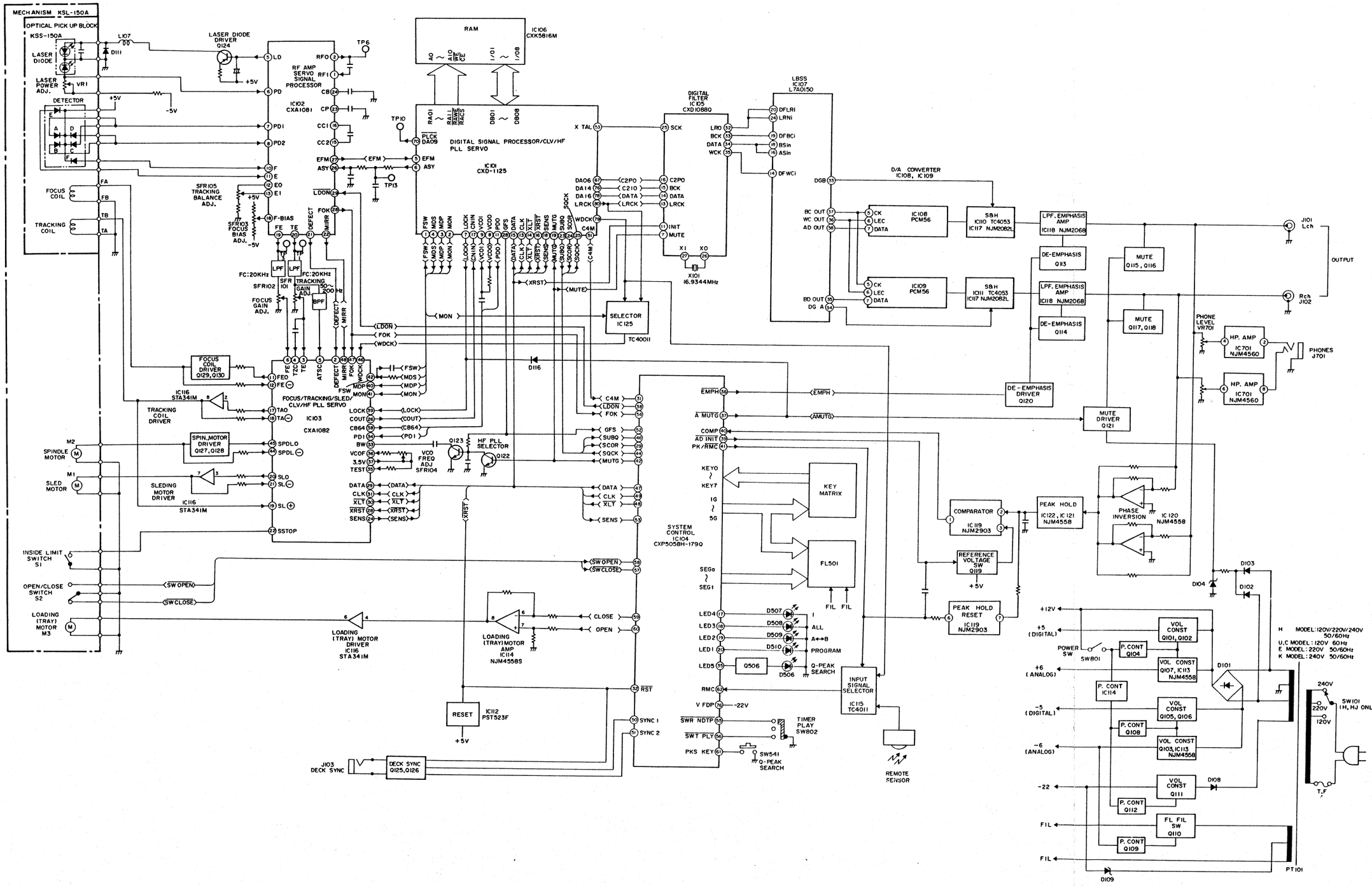
2SD880

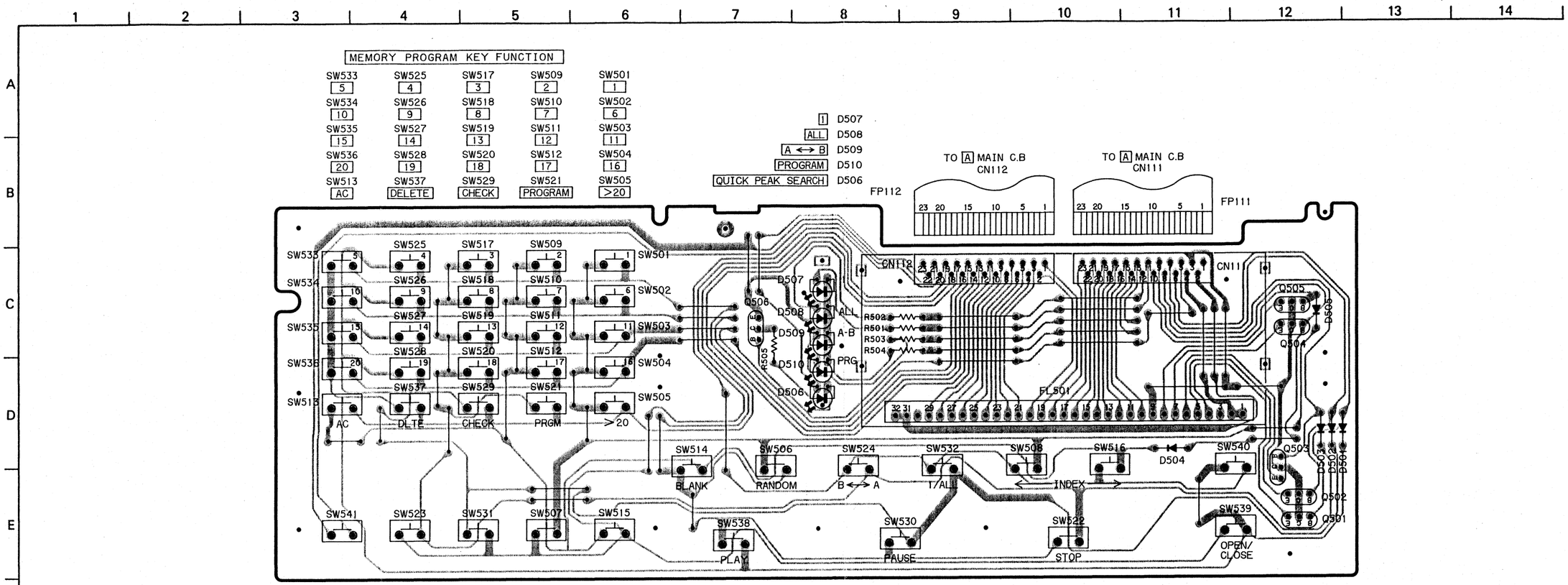


B C E

RN1204
RN1207
RN2203
RN2204

BLOCK DIAGRAM

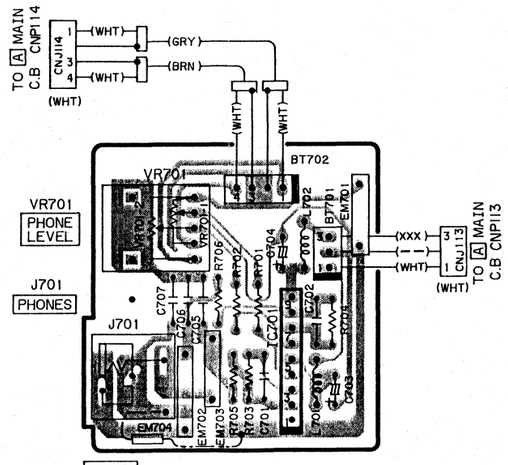




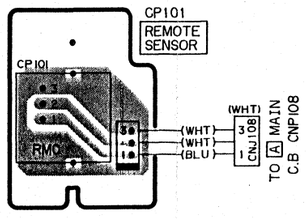
B FRONT C.B

SW514 BLANK · SW506 RANDOM · REPEAT: SW524 A↔B, SW532 1/ALL · INDEX: SW508 →, SW516 ← · SW540 TIME

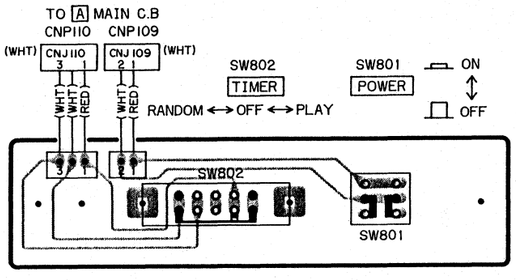
SW541 Q-PEAK SEARCH · SEARCH: SW523 ▷▷, SW531 ◁◁ · SKIP: SW507 ▷▷|, SW515 |◁◁ · SW538 PLAY · SW530 PAUSE · SW522 STOP · SW539 OPEN/CLOSE



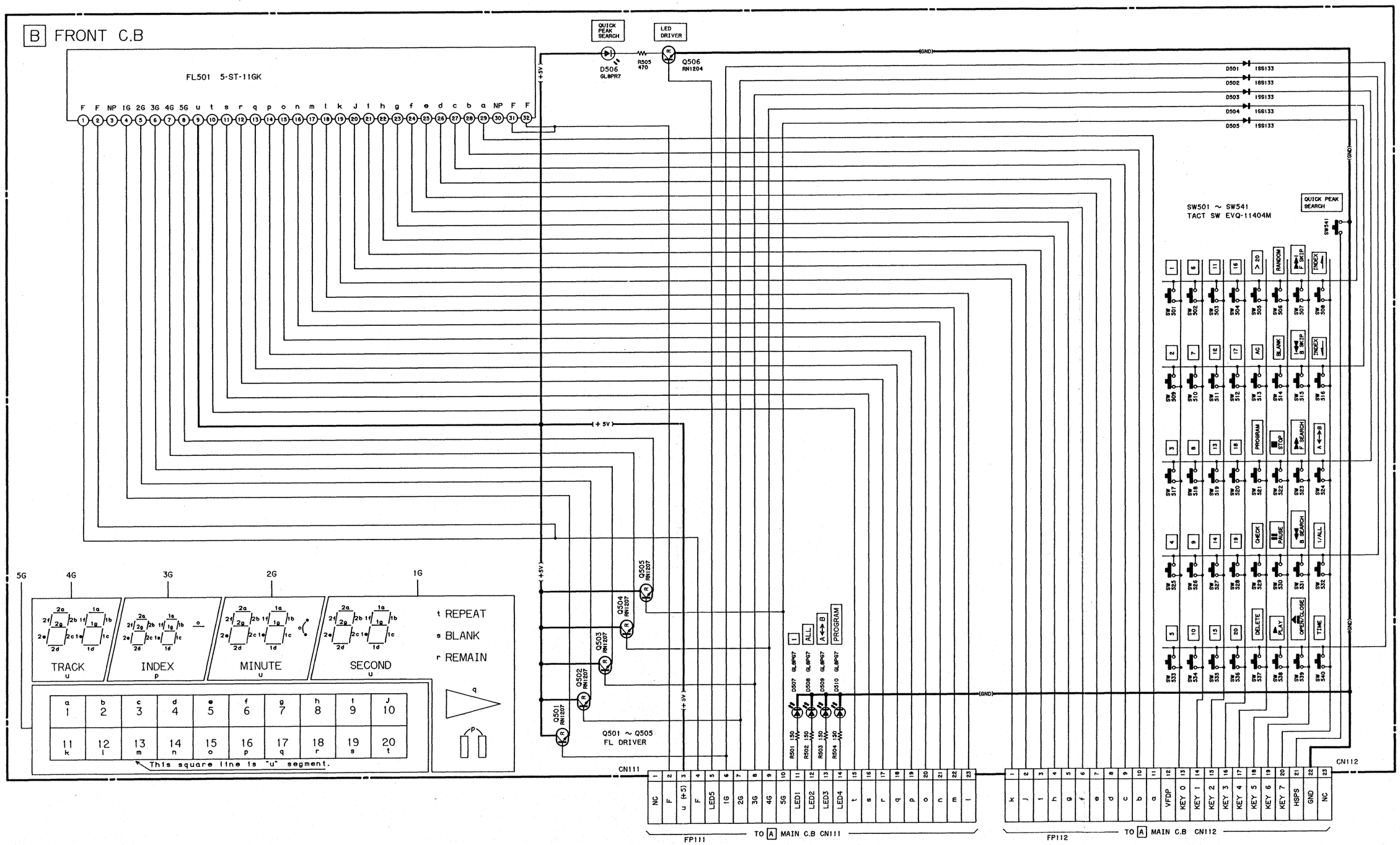
C HP C.B

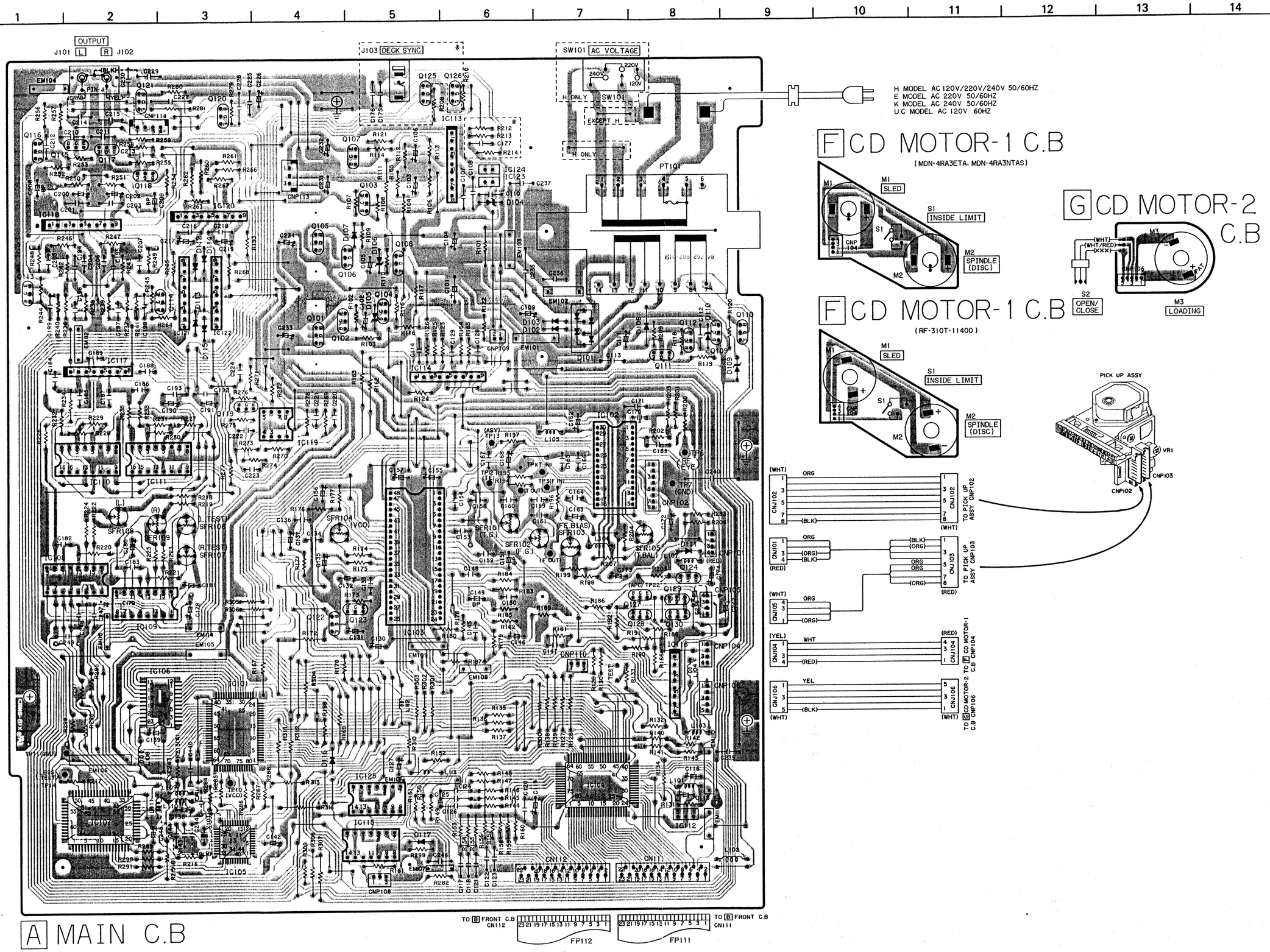


E REMOTE C.B

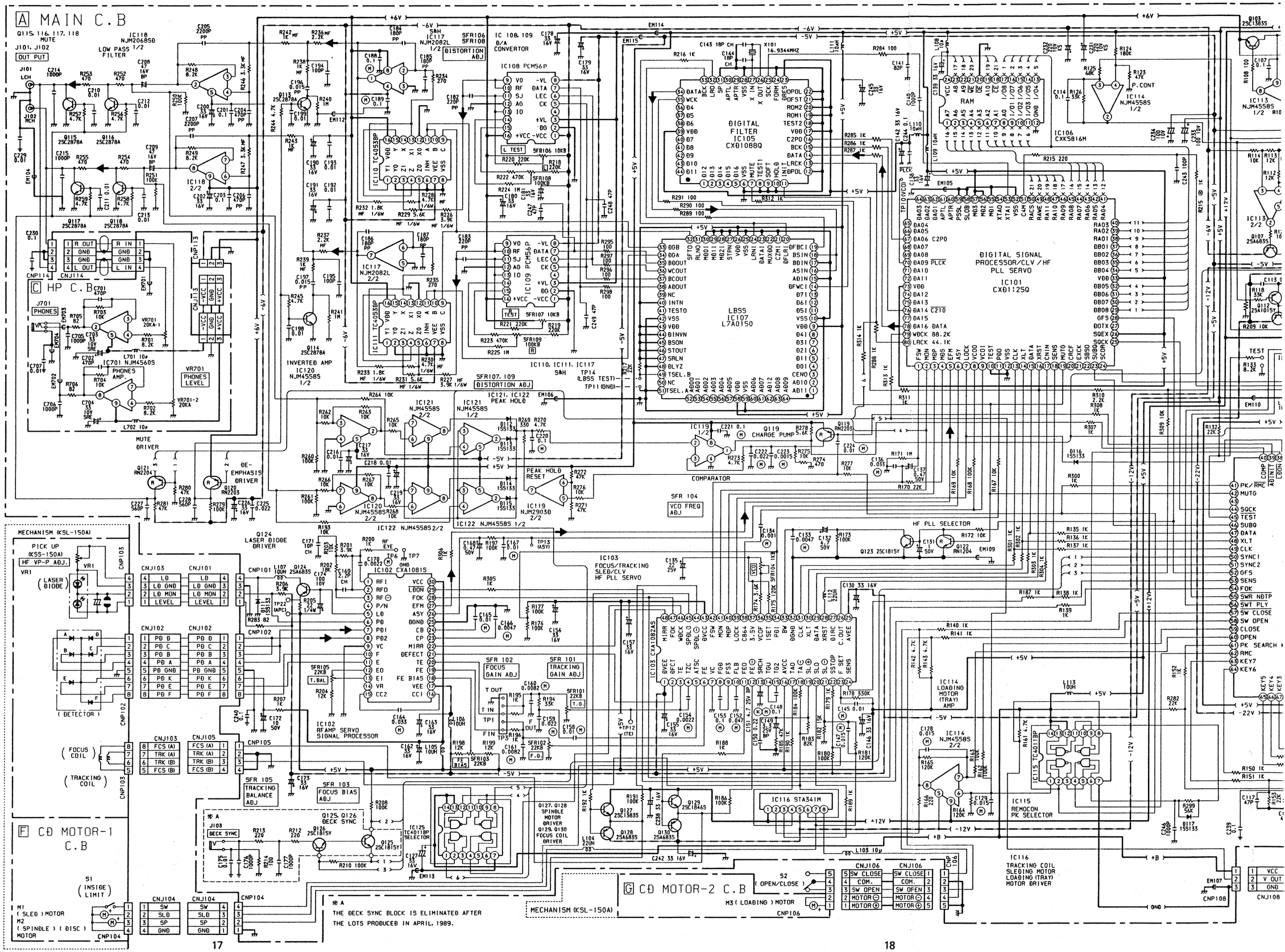


D SWITCH C.B


B FRONT C.B
FL501 5-ST-11GK
F F NP 1G 2G 3G 4G 5G u t s r q p o n m l k J i h g f e d c b a NP F F
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
QUICK PEAK SEARCH
LED DRIVER
D506 GL8PR7
R505 470
Q506 RN1204
(GND)
(+5V)
D501 1SS133
D502 1SS133
D503 1SS133
D504 1SS133
D505 1SS133
SW501 ~ SW541
TACT SW EVQ-11404M
QUICK PEAK SEARCH
SW541
SW 501 SW 502 SW 503 SW 504 SW 505 SW 506 SW 507 SW 508
SW 509 SW 510 SW 511 SW 512 SW 513 SW 514 SW 515 SW 516
SW 517 SW 518 SW 519 SW 520 SW 521 SW 522 SW 523 SW 524
SW 525 SW 526 SW 527 SW 528 SW 529 SW 530 SW 531 SW 532
SW 533 SW 534 SW 535 SW 536 SW 537 SW 538 SW 539 SW 540
1 6 11 16 > 20 RANDOM F SKIP INDEX
2 7 12 17 AC BLANK B SKIP INDEX
3 8 13 18 PROGRAM STOP F SEARCH A <-> B
4 9 14 19 CHECK PAUSE B SEARCH 1/ALL
5 10 15 20 DELETE PLAY OPEN/CLOSE TIME
5G 4G 3G 2G 1G
TRACK u
INDEX p
MINUTE u
SECOND u
t REPEAT
s BLANK
r REMAIN
q
p
a 1 b 2 c 3 d 4 e 5 f 6 g 7 h 8 i 9 J 10
11 k 12 l 13 m 14 n 15 o 16 p 17 q 18 r 19 s 20 t
This square line is "u" segment.
Q501 RN1207
Q502 RN1207
Q503 RN1207
Q504 RN1207
Q505 RN1207
Q501 ~ Q505 FL DRIVER
1 ALL A <-> B PROGRAM
D507 GL8PR7
D508 GL8PR7
D509 GL8PR7
D510 GL8PR7
R501 150
R502 150
R503 150
R504 150
CN111
NC F u (+5) F LED5 1G 2G 3G 4G 5G LED1 LED2 LED3 LED4 t s r q p o n m l
FP111
TO A MAIN C.B CN111
CN112
k J i h g f e d c b a VFDP KEY 0 KEY 1 KEY 2 KEY 3 KEY 4 KEY 5 KEY 6 KEY 7 HSPS GND NC
FP112
TO A MAIN C.B CN112


OUTPUT
J101 L R J102
J103 DECK SYNC
SW101 AC VOLTAGE
240V
220V
120V
H ONLY SW101
EXCEPT H
H ONLY
PT101
H MODEL AC 120V/220V/240V 50/60HZ
E MODEL AC 220V 50/60HZ
K MODEL AC 240V 50/60HZ
U.C MODEL AC 120V 60HZ
F CD MOTOR-1 C.B
(MDN-4RA3ETA, MDN-4RA3NTAS)
M1 SLED
S1 INSIDE LIMIT
M2 SPINDLE (DISC)
G CD MOTOR-2 C.B
M3 LOADING
S2 OPEN/CLOSE
F CD MOTOR-1 C.B
(RF-310T-11400)
PICK UP ASSY
VR1
CNP103
CNP102
CNJ102
CNJ101
CNJ103
CNJ105
CNJ104
CNJ106
TO PICK UP ASSY CNP102
TO PICK UP ASSY CNP103
TO F CD MOTOR-1 C.B CNP104
TO F CD MOTOR-2 C.B CNP106
A MAIN C.B
TO B FRONT C.B CN112
TO B FRONT C.B CN111
FP112
FP111

SCHEMATIC DIAGRAM—2



IC 108. 109 D/A CONVERTOR

IC108 PCM56P

IC109 PCM56P

DIGITAL FILTER IC105 CXD1088Q

DIGITAL SIGNAL PROCESSOR/CLV/HF PLL SERVO IC101 CXD1125Q

LBSS IC107 L7A0150

IC110. IC111. IC117 S&H

IC121. IC122 PEAK HOLD

IC119 NJM2903D 2/2

IC119 1/2 CHARGE PUMP

COMPARATOR

PEAK HOLD RESET

SFR 104 VCO FREQ ADJ

IC103 FOCUS/TRACKING SLED/CLV HF PLL SERVO

IC103 CXA1082AS

SFR 102 FOCUS GAIN ADJ

SFR 101 TRACKING GAIN ADJ

IC114 LOADING MOTOR (TRAY) AMP

IC114 NJM4558S 2/2

IC115 TC4011BP

IC115 REMOCON PK SELECTOR

IC116 STA341M

IC116 TRACKING COIL SLEDING MOTOR LOADING (TRAY) MOTOR DRIVER

Q127. Q128 SPINDLE MOTOR DRIVER
Q129. Q130 FOCUS COIL DRIVER

HF PLL SELECTOR

IC106 CXK5816M

IC114 NJM4558S 1/2

IC113 NJM4558S 1/2

IC123 ICPN10

IC124 ICPN10

IC112 PST523F

SYSTEM RESET

SYSTEM CONTROL IC104 CXP5058H 179Q

Q101. 102. 103 IC113 VOLTAGE CONST. Q104. 108. 112 POWER ON/OFF SW

Q105. 106. 107 VOLTAGE CONST.

U.C.E.K ONLY

H ONLY

SW101 AC VOLTAGE

U C MODEL: AC120V 60Hz
E MODEL: AC220V 50/60Hz
K MODEL: AC240V 50/60Hz

AC120V/ 220V/240V Hz 50/60

SWITCH C.B

SW801 POWER TIMER

SW802 PLAY OFF RANDOM

CNJ109 PSW 2 PSW 1

CNJ110 PLAY COM. RANDOM

FL.FIL SW

TO B FRONT C.B CN111

TO B FRONT C.B CN112

FP111

1	NC
2	F
3	U (+5V)
4	F
5	LED5
6	1G
7	2G
8	3G
9	4G
10	5G
11	LED1
12	LED2
13	LED3
14	LED4
15	r
16	s
17	r
18	q
19	p
20	o
21	n
22	m
23	l

FP112

1	k
2	j
3	i
4	h
5	g
6	f
7	e
8	d
9	c
10	b
11	a
12	VFDP
13	KEY0
14	KEY1
15	KEY2
16	KEY3
17	KEY4
18	KEY5
19	KEY6
20	KEY7
21	HSPS
22	GND
23	NC

CN111

CN112

G CD MOTOR-2 C.B

CNJ106 SW CLOSE COM. SW OPEN MOTOR⊖ MOTOR⊕

S2 (OPEN/CLOSE)

M3 (LOADING) MOTOR

MECHANISM (KSL-150A)

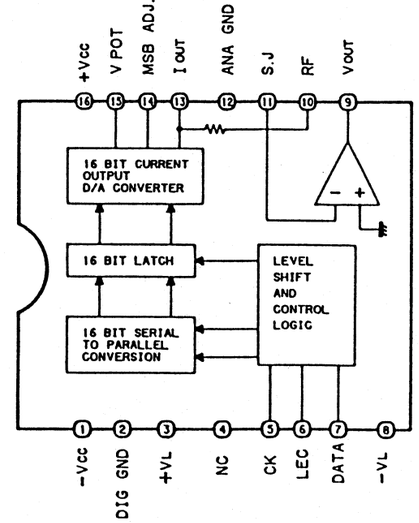
E REMOTE C.B

CNJ108 VCC V OUT GND

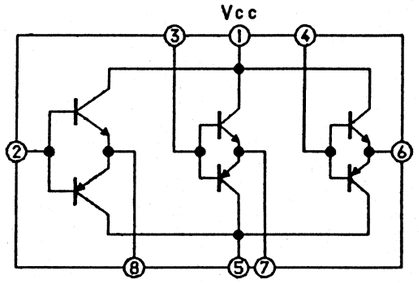
CP101 GP1U501X REMOTE SENSOR

IC BLOCK DIAGRAM

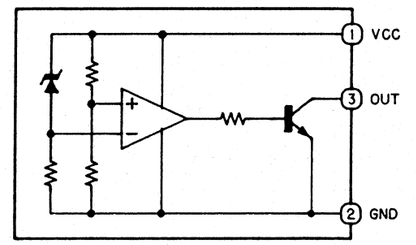
IC108, IC109 PCM56P



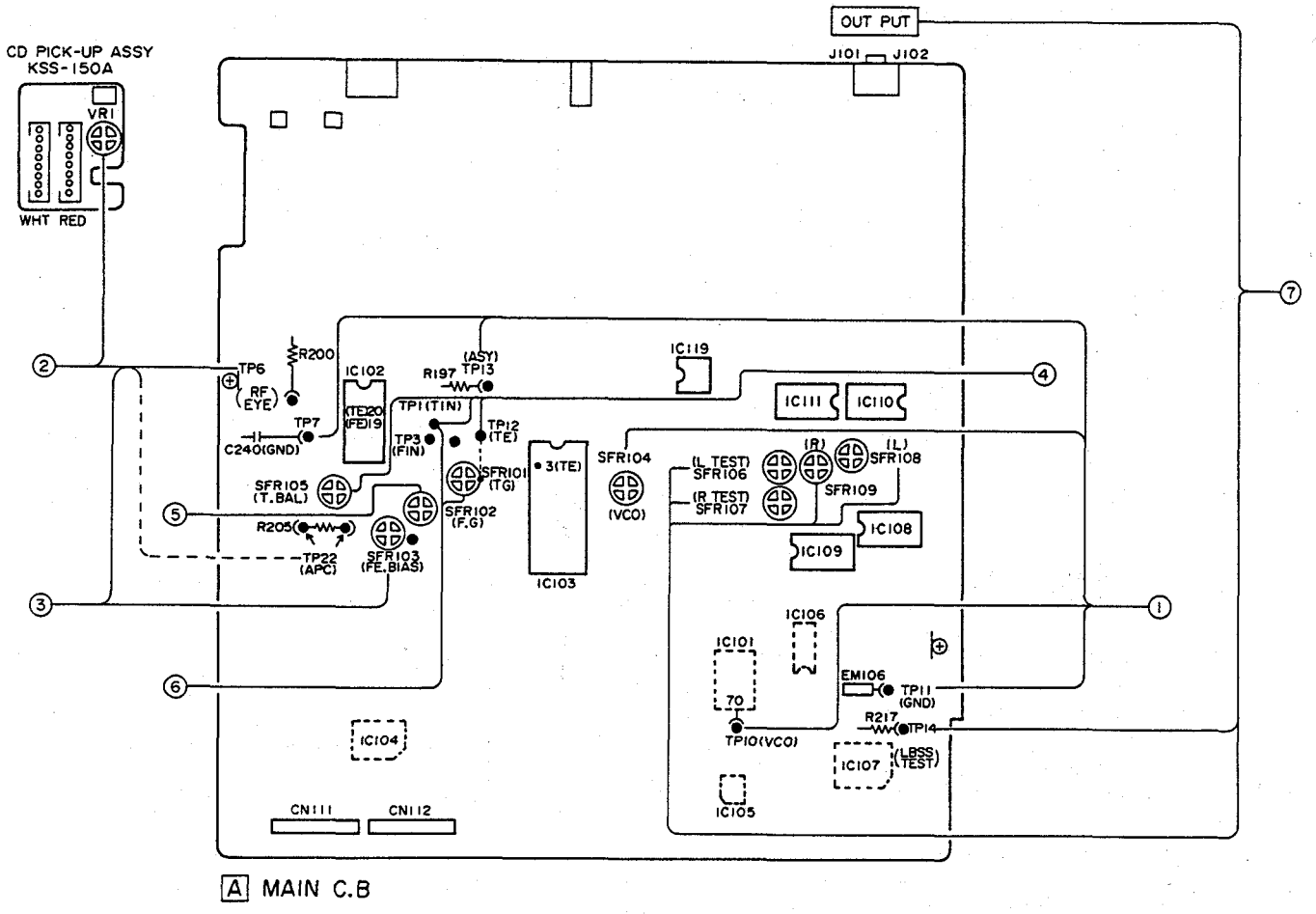
IC116 STA341M



IC112 PST523F



ADJUSTMENT



① VCO Frequency Adjustment

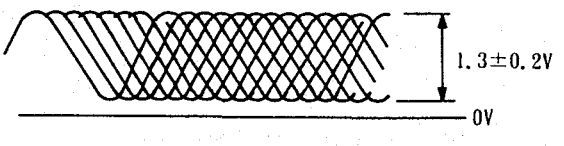
1. Open the tray using the OPEN/CLOSE button.
2. Connect TP13 (ASY) to TP7 (GND).
3. Connect a frequency counter to TP10 (VCO), TP11 (GND).
4. Adjust SFR104 (VCO) so that the frequency counter reading is 4.31MHz to 4.35MHz.
5. After adjustment, remove the grouding lead wire.

② HF Vp-p Adjustment

Make the HF Vp-p adjustment when replacing and repairing the optical block.

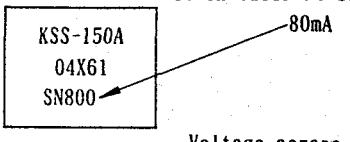
1. Connect an oscilloscope to TP6 (RF), TP7 (GND).
2. Turn on the power switch.
3. Insert the disc YEDS-18 (YEDS-1) and press the ▷PLAY button.
4. Adjust VR1 on the optical block so that the waveform on the oscilloscope is as shown in the figure below.

RF signal waveform



VOLT/DIV:0.5V
TIME/DIV:500ns

Note: Check laser current at TP22 (across R205 22Ω). The current must fall within ±6mA of the value shown in the label on laser PU back.



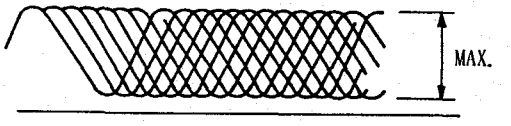
Laser current Iop = $\frac{\text{Voltage across R205}}{22\Omega}$

③ Focus Bias Adjustment

Make the focus bias adjustment when replacing and repairing the optical block.

1. Connect an oscilloscope to TP6 (RF), TP7 (GND).
2. Turn on the power switch.
3. Insert the disc YEDS-18 (YEDS-1) and press the ▷PLAY button.
4. Adjust SFR103 (FB) to make clear and maximize the waveform amplitude on the oscilloscope. For clearer waveform, diamond shapes (◇) can be distinguished in the center of the waveform.

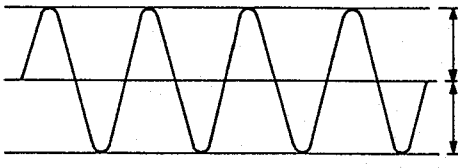
RF signal waveform



Recheck the HF Vp-p after HF Vp-p and focus bias adjustments.

④ Tracking Balance Adjustment

1. Connect an oscilloscope (DC range) to TP1 (T IN), TP7 (GND).
2. Connect center pin TP12 (TE) of SFR101 (TG) to ground.
3. Turn on the power switch.
4. Insert the disc YEDS-18 (YEDS-1) and press the ▷PLAY button.
5. Adjust SFR105 (TB) so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
6. After adjustment, remove the grouding lead wire.



⑤, ⑥ Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.
However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.
Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.
However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms \ Gain	Focus	Tracking
● The time until music starts becomes longer for STOP → PLAY or automatic selection (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP → ▷PLAY or automatic selection (⏮ ⏭ buttons pressed.)	–	low
● Disc table opens shortly after STOP → ▷PLAY.	low or high	–
● Sound is interrupted during PLAY. Or time counter display stops progressing.	–	low
● More noise during 2-axis device operation.	high	high

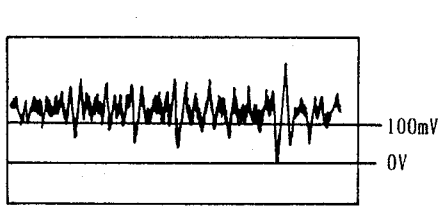
The following is a simple adjustment method.

– Simple Adjustment –

Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

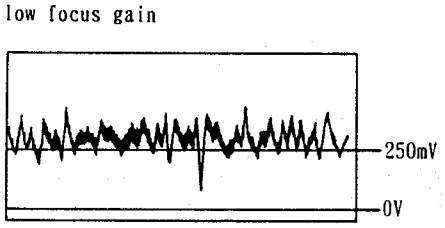
Procefure :

1. Keep the set horizontal.
   If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.
2. Insert a disc YEDS-18 (YEDS-1) and press the ▷PLAY button.
3. Connect an oscilloscope to TP3 (F IN), TP7 (GND).
4. Adjustment SFR102 (FG) so that the waveform is as shown in the figure below. (focus gain adjustment)

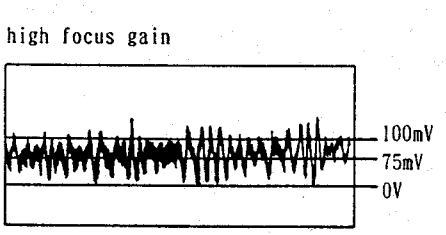


● Incorrest Examples (DC level changes more than on-adjusted waveform)

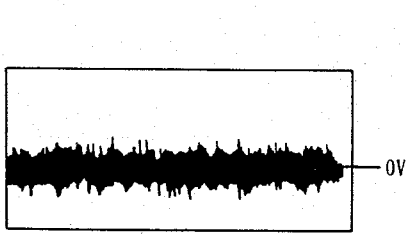
low focus gain



high focus gain

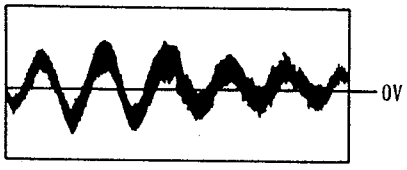


5. Connect an oscilloscope to TP1 (T IN), TP7 (GND.)
6. Adjust SFR101 (TG) so that the waveform is as in the figure below. (tracking gain adjustment)



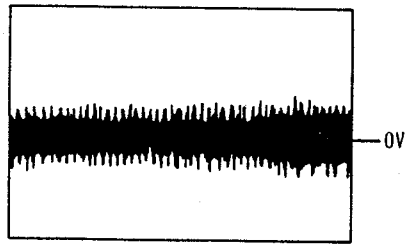
● Incorrect Example (fundamental wave appears)

low tracking gain



VOLT/DIV:0.5V
TIME/DIV:2mS

high tracking gain
(higher fundamental wave than for low gain)



VOLT/DIV:0.5V
TIME/DIV:2mS

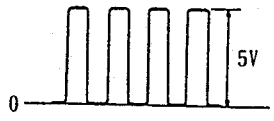
⑦ Distortion Adjustment

Note: When no distortion meter is available, be careful not to make the distortion adjustment.
SPEC. : 0.004% (1kHz)(EIAJ)

1. Connect a harmonic distortion meter to OUTPUT J101 (L CH) and J102 (R CH).
2. Connect TP14 (LBSS TEST) to TP11 (GND).
3. Insert a sine wave signal test deisc (1kHz, 0dB) (YEDS-18, TR.NO2) and press the ▷PLAY button.
4. Adjust SFR106 (L CH) and SFR107 (R CH) so that the distortion factor is minimized.
5. After adjustment, remove the grouding lead wire.
6. Adjust SFR108 (L CH) and SFR109 (R CH) so that the distortion factor is minimized.

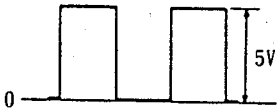
WAVE FORM

CXD1125, C4M
IC101, ⑤①



2V/DIV
0.2μS/DIV
f=4.2336MHz

CXD1125
WDCK
IC101, ⑦⑨

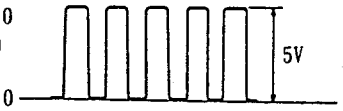


2V/DIV
2μS/DIV
f=88.2KHz

CXD1125
XTAO
IC101, ⑤④

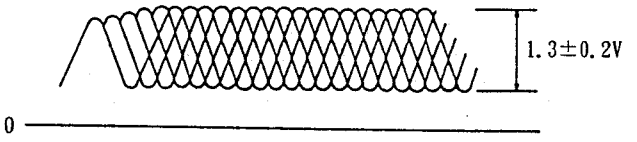
2V/DIV
0.1μS/DIV
f=16.9344MHz

CXD1125 TP10
IC101 VCO
⑦④



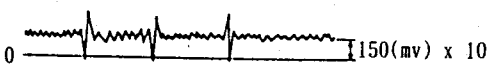
2V/DIV
0.2μS/DIV
f=4.32MHz

IC102,
TP6(RF)



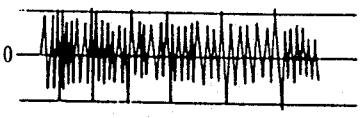
500mV/DIV
0.5μS/DIV

IC102 FE ⑲
FE



200mV/DIV
2mS/DIV

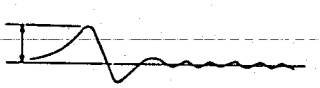
IC102, TE ⑳



500mV/DIV
1mS/DIV

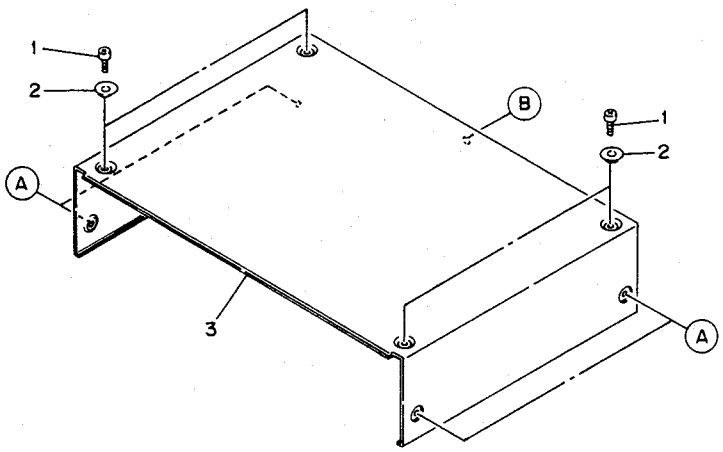
TP3(FIN)

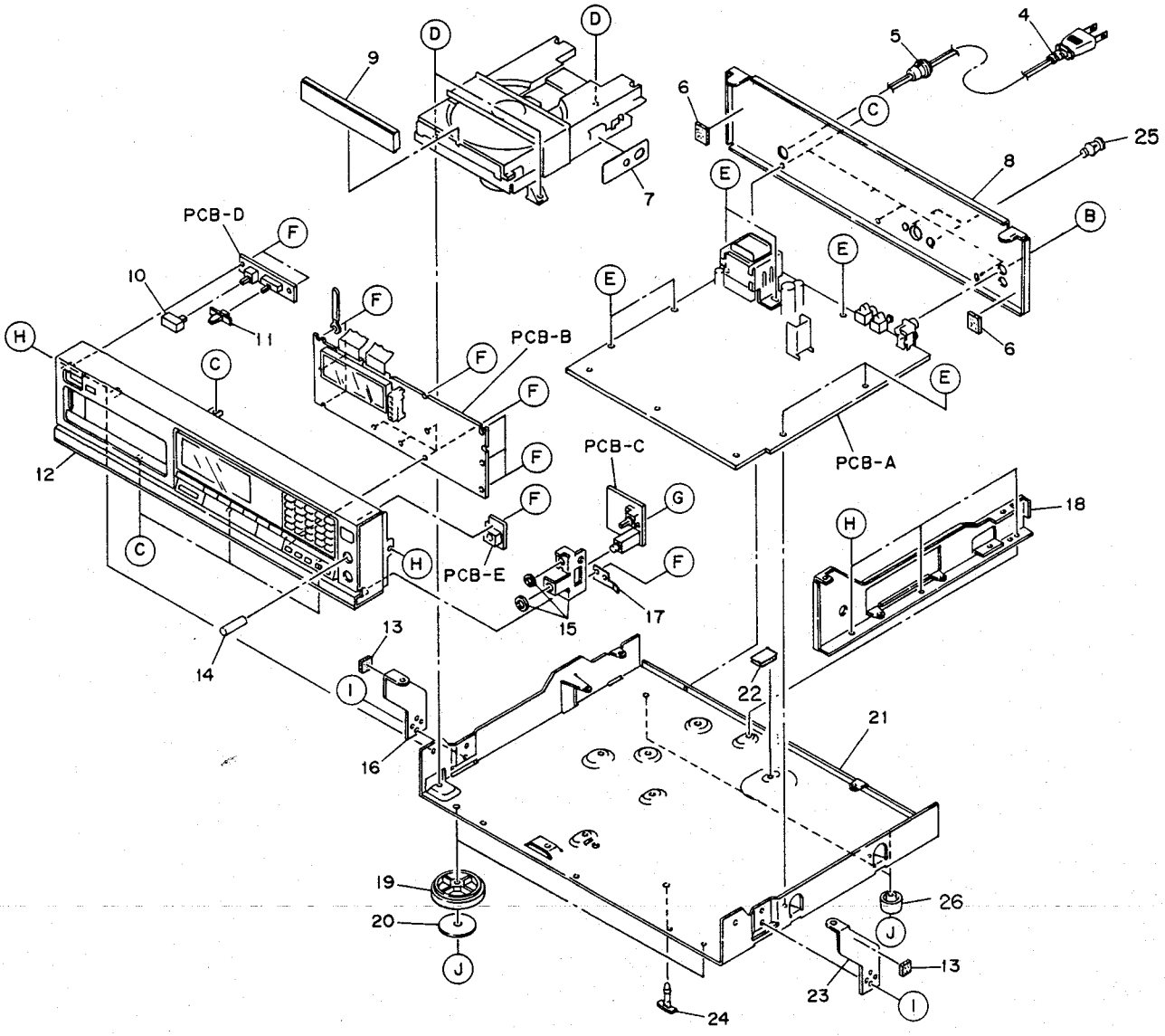
① (at FOCUS SEARCH)
≒ 1.5 (V)



EXPLODED VIEW－1

REF. NO.	PART NO.	DESCRIPTION
A	87-067-575-01	SCREW M3－8 (CASE)
B	87-743-095-01	UT$_2$+3－8 〔B〕
C	87-583-094-41	UIT+3－6 〔B〕
D	87-741-095-41	UT$_2$+3－8
E	87-761-095-41	VFT$_2$+3－8
F	87-652-096-41	VT$_1$3－10 〔R〕
G	87-622-096-41	QT$_1$+3－10 〔R〕
H	87-591-094-41	QIT+3－6
I	87-571-094-41	VIT+3－6
J	87-571-095-41	UIT+3－8

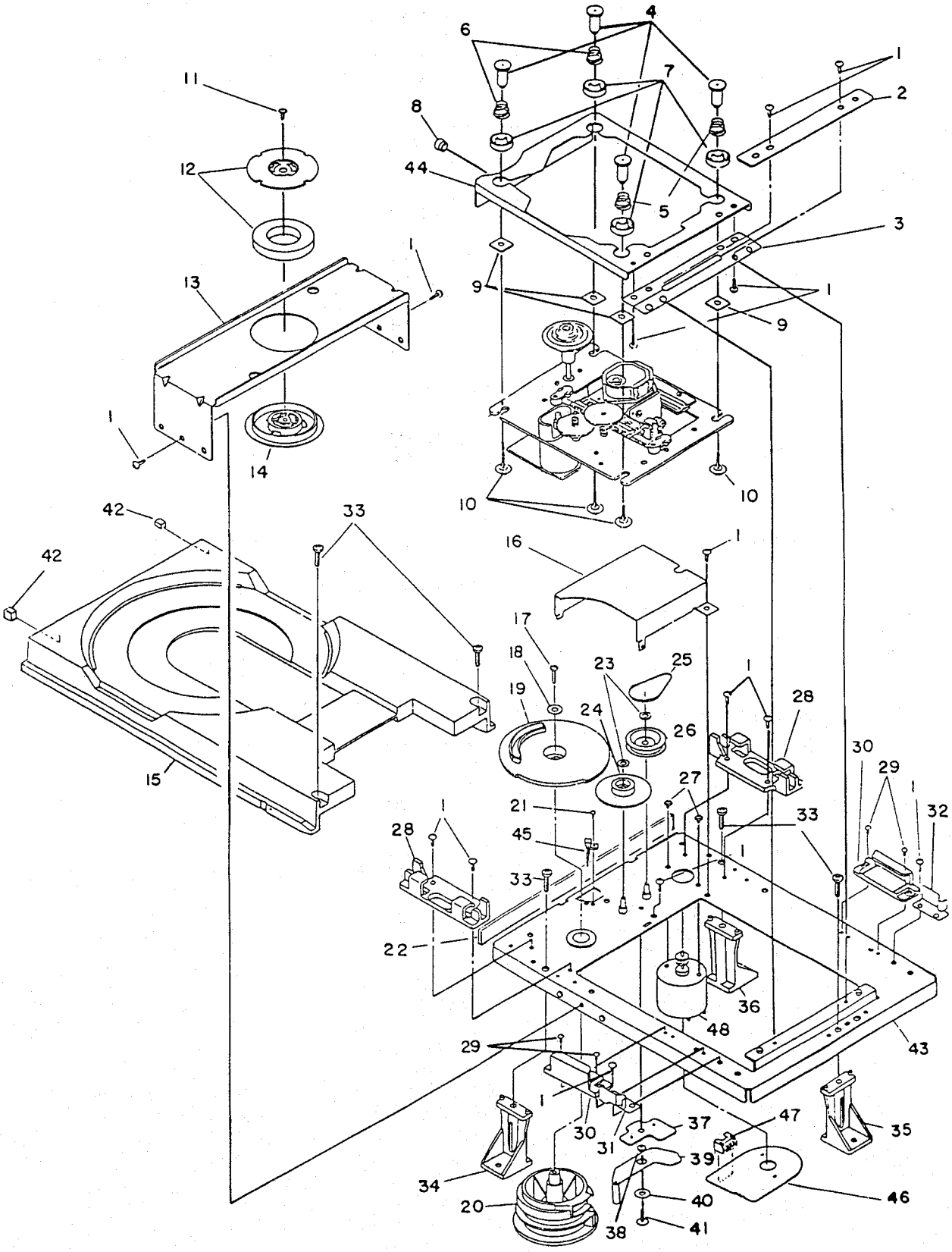




MECHANICAL PARTS LIST

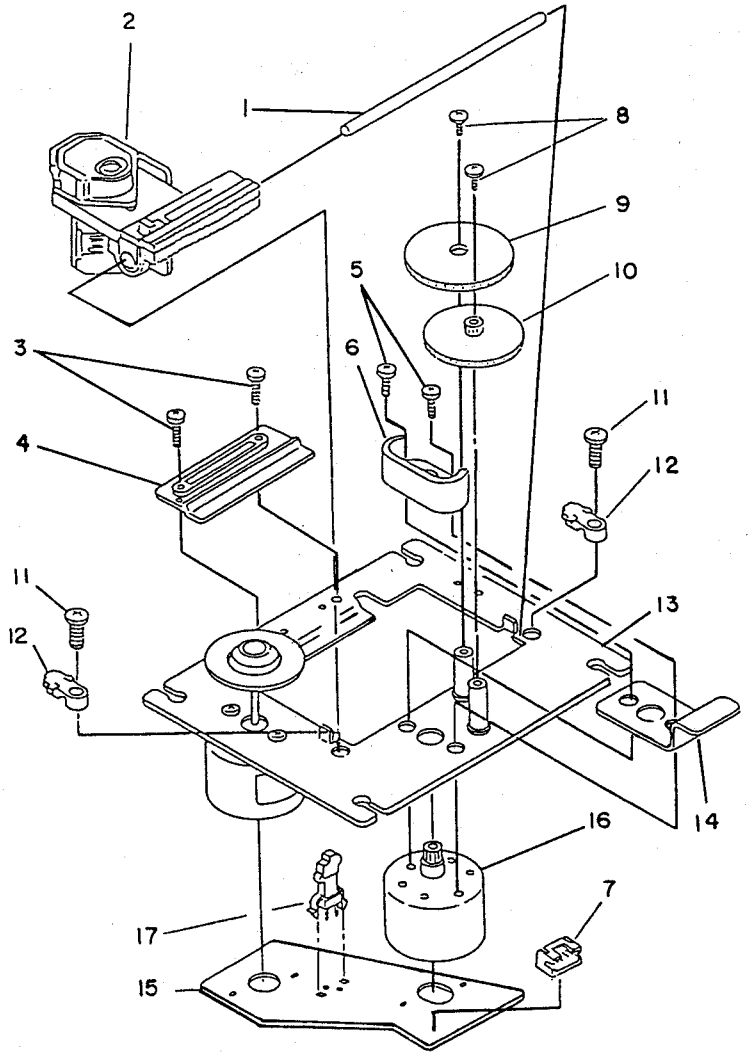
PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1-1	★87-067-510-010	SCREW, HEADER M3-8		4
	1-2	★84-738-018-010	RING TOP		4
	1-3	★84-761-006-010	CABINET STEEL		1
	1-4	★87-034-732-010	AC CORD (H)		1
	1-4	★87-034-583-019	AC CORD (U, C)		1
	1-4	★82-187-797-019	AC CORD (E)		1
	1-4	★82-187-796-019	AC CORD (K)		1
	1-5	★87-085-184-010	CORD BUSHING (H, U, C)		1
	1-5	★87-085-185-010	CORD BUSHING (E)		1
	1-5	★87-085-189-010	CORD BUSHING (K)		1
	1-6	★82-791-221-110	SHEET, 8-20-2.5		2
	1-7	---	SHEET, PU		1
	1-8	★84-762-003-119	PANEL, REAR (H)	※	1
	1-8	★84-762-006-119	PANEL, REAR (U)	※	1
	1-8	★84-762-009-010	PANEL, REAR (C)	※	1
	1-8	★84-762-007-119	PANEL, REAR (E)	※	1
	1-8	★84-762-008-119	PANEL, REAR (K)	※	1
	1-9	★84-761-014-019	JOINT CD		1
	1-10	★84-761-024-010	PUSH BUTTON POWER		1
	1-11	★81-715-029-019	KNOB, SLIDE (3)		1
	1-12	★09-057-030-010	CABINET FRONT ASSY (H, C, E, K)	※	1
	1-12	★09-057-031-010	CABINET FRONT ASSY (U)	※	1
	1-13	★82-774-215-010	CUSHION 4-10-10		2
	1-14	★84-761-015-010	TIMER BUTTON		1
	1-15	★84-761-203-010	HOLDER, PH		1
	1-16	★84-761-205-010	HOLDER, SIDE L		1
	1-17	★84-761-212-010	P-SPRING, PH		1
	1-18	★84-761-202-010	HOLDER, CENTER		1
	1-19	★84-738-022-010	FOOT		2
	1-20	★84-761-008-019	CUSHION, FOOT		2
	1-21	---	CHASSIS, AMP		1
	1-22	★87-764-203-010	SHEET, COVER		1
	1-23	★84-761-208-010	HOLDER, SIDE R		1
	1-24	★87-064-109-010	HOLDER P. C. B		1
	1-25	★87-084-098-010	NYLON RIVET 3-5.5		2
	1-26	★87-085-208-010	FOOT ASSY		2

EXPLODED VIEW—2



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	2-1	★97-685-862-010	BVTT+2.6×6		14
	2-2	★92-642-170-010	HING HOLDER		1
	2-3	★92-642-164-010	SPRING, HING		1
	2-4	★92-642-160-010	T-SPRING, SHAFT		4
	2-5	★92-642-137-010	SPRING, COIL (B)		2
	2-6	★92-642-139-010	SPRING, COIL (A)		2
	2-7	★92-642-158-010	FOOT (C)		4
	2-8	★92-642-169-010	ROLLER		1
	2-9	★92-642-159-010	T-SPRING, PLATE		4
	2-10	★92-642-142-010	SCREW		4
	2-11	★97-685-132-190	B+2.6×5		1
	2-12	91-452-507-110	MAGNET ASSY		1
	2-13	★92-642-165-010	CHAK CHASSIS		1
	2-14	★92-642-432-010	CHAKING PULLEY		1
	2-15	★92-642-156-010	SPRING, TRAY		1
	2-16	★92-642-149-010	SPRING GEAR COVER		1
	2-17	★97-685-135-190	B+2.6×10		1
	2-18	★94-812-554-000	WASHER		1
	2-19	★92-642-154-020	SPRING, DRIVE GEAR		1
	2-20	★92-642-153-010	SPRING, CONTROL CAM		1
	2-21	★97-685-851-010	BVTT+2×4		1
	2-22	★92-642-157-030	FRON TAPE		1
	2-23	★93-558-708-210	STOPPER WASHER		2
	2-24	★92-642-148-010	SPRING RELAY GEAR		1
	2-25	93-653-387-000	LM BELT		1
	2-26	★94-913-731-010	ROADING PULLEY		1
	2-27	★97-621-775-000	B+2.6×3		2
	2-28	★92-642-161-010	TRAY HOLDER (FRONT)		2
	2-29	★97-621-255-250	PTT+2×4		4
	2-30	★92-642-162-020	TRAY HOLDER		2
	2-31	★92-642-146-010	TRAY GUIDE R		1
	2-32	★92-642-147-010	TRAY GUIDE L		1
	2-33	★97-685-647-790	B+3×10		5
	2-34	★92-642-510-010	MD HOLDER BOSS		1
	2-35	★92-642-512-010	MD HOLDER BOSS (REAR)		1
	2-36	★92-642-511-010	MD HOLDER BOSS L		1
	2-37	★92-642-173-010	RING PLATE		1
	2-38	★92-642-133-020	BOSS		1
	2-39	★9X-264-210-710	STOPPER RING ASSY		1
	2-40	★92-642-172-010	SPEACER		1
	2-41	★97-685-143-190	PTPWH+2×8		1
	2-42	★92-642-125-010	DAMPER		2
	2-43	★9X-264-210-610	SPRING MAIN CHASSIS ASSY		1
	2-44	★9X-264-210-510	SPRING SUB CHASSIS ASSY		1
	2-45	91-571-312-110	LEAF SWITCH (OPEN/CLOSE)		1
	2-46	★91-624-793-210	CD MOTOR 2 C.B		1
	2-47	★91-564-721-110	CONNECTOR PIN 5P		1
	2-48	9X-264-133-610	MOTOR ASSY (LOADING)		1

EXPLODED VIEW－3



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	3-1	★94-910-431-010	SLIDE SHAFT		1
	3-2	98-848-046-510	PICK UP (KSS-150AHRP)		1
	3-3	★92-642-144-010	PTT＋2×6		2
	3-4	★92-641-443-010	SLIDE HOLDER		1
	3-5	★97-621-255-350	P＋2×5		2
	3-6	★92-641-434-010	GEAR COVER		1
	3-7	★92-564-720-110	CONNECTOR PIN		1
	3-8	★93-303-809-310	SPECIAL SCREW M1.7－3		2
	3-9	9X-264-076-910	GEAR A		1
	3-10	★92-641-403-050	GEAR B		1
	3-11	★92-641-447-010	STP＋2.6×8		2
	3-12	★92-641-448-020	SHAFT CLUMP		2
	※ 3-13	9X-264-133-710	SP MOTOR ASSY (W/CHASSIS, T.T) (DISC) (RF-310T-11400)		1
	※ 3-13	9X-264-134-810	SP MOTOR ASSY (W/CHASSIS, T.T) (DISC) (MDN-4RA3NTAS)		1
	3-14	★92-641-371-010	STOPPER		1
	※ 3-15	★91-625-848-110	CD MOTOR 1 C.B (RF-310T-11400)		1
	※ 3-15	★91-628-263-110	CD MOTOR 1 C.B (MDN-4RA3NTAS/4RA3ETA)		1
	※ 3-16	9X-264-077-010	SLED MOTOR GEAR ASSY (SLED) (RF-310T-11400)		1
	※ 3-16	9X-264-134-410	SLED MOTOR GEAR ASSY (SLED) (MDN-4RA3ETA)		1
	3-17	91-570-822-210	LEAF SWITCH (LIMIT)		1

※Caution
Two types of the spindle (DISC) motor and sled motor are used, but they are not compatible.
Check the part numbers (MDN ····, RF ····) on the labels of motors and replace motors with the same one.